IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.:	10/708,406	Confirmation No.: 2405
Applicant:	Garcia, *et al.*	
Filed:	03/01/2004	
TC/A.U.	3672	
Examiner:	Matthew J. Smith	
Docket No.:	19.0372	
Customer No.:	23718	
Title:	WELLBORE DRILLING SYSTEM AND METHOD	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Dear Sir:

Pursuant to 37 C.F.R. § 41.37, please consider the following Appellant's Brief in the present application before the Board of Patent Appeals and Interferences. Please charge the fee for filing a brief in support of an appeal ($500.00) to Deposit Account 19-0610 (Reference Number 19.0372).

Table of Contents

I. Real Party in Interest

The real party in interest is Schlumberger Technology Corporation.

II. Related Appeals and Interferences

The are no related appeals or interferences

III. Status of Claims

The application includes claims 1–36 and 38. Claims 1–10, 15–29, 32–36, and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,794,534 issued to Millheim ("Millheim") in view of U.S. Patent No. 6,456,902 issued to Streetman ("Streetman"). Claims 11–14, 30, and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Millheim in view of Streetman and further in view of U.S. Patent 5,864,722 issued to Alvarado, *et al.* ("Alverado").

Thus, all claims are rejected, and the Applicant respectfully appeals the rejection of all of the claims (1–36, and 38).

IV. Status of Amendments

No amendments were made after the issuance of the final office action.

V. Summary of Claimed Subject Matter

The present application is directed to the automatic control of a drilling operation from an offsite control center. Each of the independent claims includes limitations that require that a drilling command, developed at an offsite control center, is transmitted to the wellsite and executed automatically – without further human intervention at the wellsite.

In general, the method claims relate to a process that includes collecting data ("wellsite parameters") from sensors in the drilling system. The data is transmitted to an offsite control center, where it is analyzed to determine drilling commands for drilling the well according to plan. The commands are transmitted back to the wellsite and the wellsite setup is automatically changed based on the command. The wellsite setup controls the drilling process.

The application includes four independent claims, 1, 19, 33, and 36. The specific limitations in each claim is summarized below.

A. Claim 1

Claim 1 relates to a method for drilling at least one wellbore (11) from an offsite location (202). The wellbore (11) is located at a wellsite (1) that includes a drilling rig (10) with a downhole drilling tool (100). The method includes selectively advancing the drilling tool (100) into the earth to form the wellbore (11), where the tool is operated according to a wellsite setup and collecting wellsite parameters from sensors (e.g., 6, 7) positioned about the wellsite (11). The method also includes transmitting at least a portion of the wellsite parameters to an offsite control center (202) and performing an analysis of the wellsite parameters. Finally, the method includes performing an analysis of the wellsite parameters and automatically adjusting the wellsite setup from the offsite center (202) based on the analysis of the wellsite parameters.

B. Claim 19

Claim 19 recites a system fro drilling a wellbore from an offsite location . The system includes at least one wellsite (212a) and an offsite control center (202). The wellsite (212a) includes a drilling assembly (222) with a drilling tool (224a) suspended from a rig via a drill string. The drilling tool has a bit (e.g., 15 in Fig. 1) at the downhole end that is adapted to advance into the earth to form the wellbore (225a). The wellsite (212a) also include a plurality

of sensors (e.g., 6, 7, in Fig. 1) disposed about the wellsite that are adapted to collect wellsite parameters and a wellsite transceiver for sending signals from and receiving signals at the wellsite. The offsite control center (202) includes a offsite transceiver for sending signals from and receiving signals at the offsite location, an offsite processor adapted to generate an analysis of the wellsite parameters and make decisions in response, and an offsite controller adapted to automatically adjust the wellsite setup according to the analysis of the wellsite parameters. The system also includes an offsite communication link between the wellsite and offsite transceivers for passing signals.

C. Claim 33

Claim 33 recites a method for drilling at least one wellbore (225a) at a wellsite (212a) from an offsite location (202). The method includes selectively operating at least one drilling tool (224a) according to a wellsite setup to form the wellbore (225a), collecting wellsite parameters from a plurality of sensors (e.g., 6, 7 in Fig. 1) positions about the wellsite (212a), selectively adjusting the wellsite setup at the wellsite via a wellsite control unit (228a), transmitting a portion of the wellsite parameters to the wellsite to an offsite control center (202), and automatically adjusting the wellsite setup at the offsite control center based on an analysis of the wellsite parameters.

D. Claim 36

Claim 36 relates to a method for drilling at least one wellbore (225a) from an offsite location. The wellbore (225a) is located at a wellsite (212a) that includes a drilling rig (222) with a downhole drilling tool (224a). The method includes selectively advancing the drilling tool (224a) into the earth to form the wellbore (225a), where the tool is operated according to a wellsite setup and collecting wellsite parameters from sensors (e.g., 6, 7 in Fig. 1) positioned

about the wellsite. The method also includes transmitting at least a portion of the wellsite parameters to an offsite control center (202) and performing an analysis of the wellsite parameters. The method includes performing an analysis of the wellsite parameters. The method include determining a drilling command at the offsite control center (202) in response to the wellsite parameters and transmitting the command from the offsite control center (202) to a surface control unit (228a) at the wellsite. Finally, the method includes automatically transmitting the drilling command from the surface control unit (228a) to the downhole drilling tool (224a), and implementing the drilling command at the downhole tool (224a).

E. Specification

The specification describes an example wellsite beginning in paragraph 20 (pg. 8, ll. 1–11), and the wellsite (1) is shown in Fig. 1. The wellsite (1) includes a drilling rig (10) and a bottom hole assembly ("BHA") (100) which includes the drilling tools. Beginning in paragraph 31 (pg. 15, ll. 4–10), the specification discloses an offsite system (200) for controlling a drilling operation, as shown in Fig. 2. The offsite control center (202) in Fig. 2 is operatively connected to wellsites 212a, 212b, 212c, and 212d.

Paragraph 4 (pg. 1, ll. 13–15) discloses that a drilling tool is deployed into the earth from a drilling rig to create a wellbore. Referring to Fig. 1, paragraphs 20 through 21 (pg. 8, l. 1 – pg. 9, l. 1) disclose a drilling tool (3) that is selectively advanced to create the wellbore (11). The drilling tool (3) includes a drill string (12) and a drill bit (15) at the lower end of the drill string (12). Paragraph 28 (pg. 12, ll. 21) discloses that the manipulation of a drilling operation may be accomplished by actuating various valves, switches, and other devices that form a wellsite setup. The wellsite setup may be selectively adjusted to control the drilling operation.

Referring to Fig. 1, paragraph 25 (pg. 10, l. 12 – pg. 11, l. 5) discloses that sensors, such as cameras (6) and gauges (7) are disposed about the surface systems to provide information about the surface systems. Examples of parameters include standpipe pressure, hookload, depth, surface torque, and rotary RPM. Downhole sensors or gauges (8) provide information about the downhole condition, such as wellbore pressure, weight on bit, torque on bit, direction and inclination, collar RPM, tool and annular temperatures, and toolface. Paragraph 26 (pg. 11, l. 6 – pg. 12, l. 1) discloses methods for transmitting the downhole data to the surface.

Referring to Fig. 2, paragraph 31 (pg. 15, ll. 4–10) discloses that an offsite control center (202) is operatively connected to one or more wellsites (212a, 212b, 212c, and 212d). Paragraphs 36 and 37 (pg. 17, l. 4 – pg. 18, l. 1) disclose various communication links between the offsite control center (202) and the one or more wellsites (212a, 212b, 212c, and 212d). Paragraph 39 (pg. 18, l. 19 – pg. 19, l. 7) describes a wellsite transceiver (304 in Fig. 3), an offsite processor (302), and an offsite control unit (202). Paragraph 40 (pg. 19, ll. 8–18) describes an offsite transceiver (306 shown in Fig. 3). Paragraph 41 (pg. 19, l. 9 – pg. 20, l. 7) describes a communication link (214 in Fig. 2).

Referring to Fig. 3, paragraph 40 (pg. 19, ll. 8–18) discloses that the offsite control center receives information from the wellsites via a transceiver (306) and analyzes the wellsite parameters. Paragraph 47 (pg. 23, ll. 4–20) discloses that decisions may be made based on some or all of the data. The decisions may be used to design a drilling plan. Paragraph 48 (pg. 23, l. 21 – pg. 24, l. 6) discloses that commands may be sent to one or more drilling operations at the wellsites to adjust the wellsite setup. Paragraph 44 (pg. 21, l. 15 – pg. 22, l. 3) discloses automated sending of commands in response to that data. Paragraph 48 further discloses that

commands received at the wellsite may be implemented, which alters the drilling operation. As examples, the specification states drilling speed or trajectory may be adjusted.

Further, the method in claim 1 is shown generally in Fig 4, which is discussed in the specification in paragraphs 46 through 47 (pg. 22, l. 10 – pg. 23, l. 20).

VI. Grounds of Rejection to be Reviewed

The grounds of rejection to be reviewed are as follows:

(1) Whether the combination of Millheim and Streetman teach or suggest automatically adjusting a wellsite setup from the offsite center, as recited in independent claims 1 and 33.

(2) Whether the combination of Millheim and Streetman teach or suggest an offsite controller adapted to automatically adjust the wellsite setup according to the analysis of the wellsite parameters, as recited in independent claim 19.

(3) Whether the combination of Millheim and Streetman teach or suggest automatically transmitting the drilling command from the surface control unit to the downhole drilling tool, as recited in independent claim 36.

(4) Whether Streetman may be properly combined with Millheim.

VII. Argument

A. Whether the combination of Millheim and Streetman teach or suggest automatically adjusting a wellsite setup from the offsite center, as recited in independent claims 1 and 33.

Independent claims 1 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Millheim in view of Streetman. Obviousness under Section 103 is based on four factual inquiries: (1) the scope and content of the prior art; (2) the differences between the

claims and the prior art; (3) the level of ordinary skill in the relevant art; and (4) secondary considerations of non-obviousness. *B.F. Goodrich Co. v. Aircraft Braking Sys. Corp.*, 72 F.3d 1577, 1582 (Fed. Cir. 1996). "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP § 2143.03 (quoting *In re Royka*, 409 F.2d 981 (C.C.P.A. 1974)).

Claims 1 and 33 both recite the step of automatically adjusting the wellsite setup at the offsite control center based on an analysis of the wellsite parameters. Neither Millheim nor Streetman teach or suggest this limitation, and for that reason, the claims are allowable over the combination.

Millheim teaches a method for drilling a well using predictive simulations. Drilling data may be transmitted on a real-time basis into a database. A monitoring facility may use the drilling data and, if desired, simulate future drilling actions. (Abstract). Milheim teaches performing simulations to determine the best corrective action to solve a problem. Once the best action is determined, it may be communicated to the wellsite "visually, audially, and/or graphically." (Col. 11, ll. 4–12). In fact, Millheim states that "the decisions effecting the drilling operation of the well are made <u>at the wellsite</u> by the engineer" (Col. 10, ll. 34–36, emphasis added), and that the engineers at the monitoring facility can very closely monitor the well and can help make decisions (Col. 10, ll. 41–43). Thus, because the corrective action taught in Millheim requires a human driller to receive and implement the corrective action, it does not disclose automatically adjusting the wellsite setup from the offsite control center.

In support of this conclusion, it is noted that the Examiner stated that Millheim does not disclose "automatically adjusting from an offsite center." (Office Action dated February 13, 2007 at 2).

Streetman discloses a system for a on-demand control of fluids in a production well, that is, a well from which hydrocarbon fluids are being produced and not drilled (see col. 1, ll. 13–21). The Applicant concedes that Streetman teaches controlling a large number of wells from a common site (read as an "offsite control center"). However, Streetman relates to control of a production well, and therefore does not teach or suggest "a method for drilling at least one wellbore," as recited in claims 1 and 33.

Because Millheim does not teach "automatically adjusting a wellsite setup," Streetman must show that limitation to render the claim unpatentable (see In re Royka, 409 F.2d 981 (C.C.P.A. 1974)). The Applicant believes Streetman is used to show automatic control, without regard for what is being controlled. Because Streetman does not teach or suggest "automatically adjusting a wellsite setup" in a method for drilling a wellbore, it does not make up for the deficiencies of Millheim.

Thus, independent claims 1 and 33 are allowable over the combination of Millheim and Streetman.

B. Whether the combination of Millheim and Streetman teach or suggest an offsite controller adapted to automatically adjust the wellsite setup according to the analysis of the wellsite parameters, as recites in claim 19.

Claim 19 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Millheim in view of Streetman. The same standard is applied here as in (1), above, namely that all the claim limitations must be taught or suggested by the prior art.

The descriptions of Millheim and Streetman from section (1) above are incorporated here. Claim 19 recites a system for drilling a wellbore from an offsite location, and it includes the limitation of an offsite controller that is adapted to automatically adjust the wellsite setup according to the analysis of the wellsite parameters.

As discussed above, Millheim does not teach or suggest automatically adjusting a wellsite setup from an offsite control center. For the same reasons stated above, Streetman does not make up for this deficiency. Thus, claim 19 is allowable over the combination of Millheim and Streetman.

C. Whether the combination of Millheim and Streetman teach or suggest automatically transmitting the drilling command from the surface control unit to the downhole drilling tool.

Claim 36 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Millheim in view of Streetman. The same standard is applied here as in (1), above, namely that all the claim limitations must be taught or suggested by the prior art.

The descriptions of Millheim and Streetman from section (1) above are incorporated here. Claim 36 recites a method for drilling at least one wellbore from an offsite location. The method includes the steps of automatically transmitting the drilling command from the surface control unit to the downhole drilling tool, and implementing the drilling command at the downhole tool.

As discussed above, Millheim requires human intervention at the wellsite and therefore does not teach or suggest automatically transmitting a drilling command, received from an offsite control center, from the surface control unit to a downhole drilling tool.

Streetman relates to a production well. It does not teach or suggest a drilling command or sending a drilling command to a drilling tool. Therefore, it does not teach or suggest automatically transmitting a drilling command to a drilling tool, as recited in the claim. Thus, claim 36 is allowable over the combination of Millheim and Streetman.

D. Whether Streetman may be properly combined with Millheim.

Streetman may not be combined with Millheim because there is no rational or reasoning to support the combination of these two references. Further supporting this conclusion is the fact that Streetman is from a non-analogous art.

The legal framework for determining whether there is a teaching, suggestion, or motivation to combine references used in an obviousness rejection has been called into question by the Supreme Court. *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007). Nonetheless, there must still be "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.* at 1741 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). "[H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claims, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.*

The Court explained:

> As is clear from cases such as Adams, a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, <u>it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does</u>. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

[*Id.*, emphasis added]

"[T]he examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). Where the examiner does not explain the

"specific understanding or principle" that would motivate a person having skill to make the combination, "this court infers that the examiner selected these references with the assistance of hindsight." *Id.* at 1357.

The Examiner has not put forth articulated reasoning or rational underpinning to support the legal conclusion of obviousness. No reason has been identified that would have prompted a person having ordinary skill in the art to combine the references, as the Supreme Court has suggested is important. Because no such reason has been set forth, the combination of Streetman with Millheim constitutes impermissible hindsight.

Further, "[t]he scope of the prior art has been defined as that 'reasonably pertinent to the particular problem with which the inventor was involved.'" *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535 (Fed. Cir. 1983) (quoting *In re Wood*, 599 F.2d 1032, 1036 (C.C.P.A. 1979)). "'In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned.'" MPEP § 2141.01(a)(I.) (quoting *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1986)).

In the most recent rejection, the Examiner stated that "Streetman suggests analogous art by stating, 'When a successful well is drilled,' thereby linking drilling to completion." (Office Action dated February 13, 2007 at 4). This statement merely links drilling and completion in that a well must be drilled before it is produced. It does not provide any reasoning or rational underpinning that supports combining the references and the legal conclusion of obviousness, and it does not provide a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way recited in the claims.

The statement also does not indicate how the problem in Streetman relates to the problem to be solved by the Applicant. Streetman relates to the control of a production well, which is not in the Applicant's field of endeavor, and it is not related to the problem the Applicant was trying to solve. In particular, the control of a production well is so different from the control of a drilling operation, the a person having ordinary skill in the art would not look to Streetman to solve a drilling control problem.

In support of this, the Applicant has submitted the Declaration of James Belaskie Under 37 C.F.R. § 1.132. Mr. Belaskie has personal knowledge of the skill in the art, and he states that a person having ordinary skill in the art, when confronting the same problem as the inventors, would not look to Streetman because Streetman is from an unrelated art. In fact, Mr. Belaskie states that the measurements needed for production control are in the order of one to few measurements per day, and the control signals are transmitted in the same time frame, at most a few control signals per day. The issue of data transmission latency can be ignored in production control. To control a drilling operation, measurements are needed remotely on the order of every second to every three seconds. Latency in the data and control communications is a dominant factor in the design of a remote control drilling system. Someone designing a drilling control system would look to systems where data and control signal transmission latency is a significant portion of the needed frequency for measurements and control signals. Latency is such a small portion of the needed frequency for measurements for production control that it can be ignored.

Thus, Streetman cannot be combined with Streetman because there is no articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. Evidence of this can be found in the fact that no specific understanding or principle for combining the references has been provided. Further, the Declaration of James Belaskie states

the differences between the problems solved by Streetman and by the Applicant. Because of the differences, Streetman is non-analogous art and cannot be properly combined with Millheim.

VIII. Conclusion

The claims in this application are allowable over the combination of Millheim and Streetman because: (1) the combination does not teach or suggest all of the limitations that are recited in the claims; and (2) the references are not properly combinable. As to the latter, no articulated reasoning with some rational underpinning to support the legal conclusion of obviousness has been provided. In addition, Streetman is from a non-analogous are, providing further evidence that the combination is improper. Thus, the independent claims are allowable over Millheim is view of Streetman.

Please apply any charges not covered or any credits, to Deposit Account 19-0610 (Reference Number 19.0372).

Date: 7/13/07

Respectfully submitted,

James L. Kurka
James L. Kurka, Reg. No. 47,726
Schlumberger Technology Corporation
200 Gillingham Lane, MD 9
Sugar Land, TX 77478
Telephone: (281) 285-7114
Facsimile: (281) 285-8821

IX. Claims Appendix

1. (Original) A method for drilling at least one wellbore from an offsite location, the at least one wellbore located at a wellsite having a drilling rig with a downhole drilling tool suspended therefrom, comprising:

selectively advancing the downhole drilling tool into the earth to form the at least one wellbore, the downhole drilling tool operated according to a wellsite setup;

collecting wellsite parameters from a plurality of sensors positioned about the wellsite;

transmitting at least a portion of the wellsite parameters to an offsite control center;

performing an analysis of the wellsite parameters; and

automatically adjusting the wellsite set up from the offsite center based on the analysis of the wellsite parameters.

2. (Original) The method of claim 1, further comprising manually adjusting the wellsite setup at the wellsite.

3. (Original) The method of claim 1, further comprising automatically adjusting the wellsite setup at the wellsite.

4. (Original) The method of claim 3, wherein the automatic adjustments are made by one of a surface control unit, a downhole control unit and combinations thereof.

5. (Original) The method of claim 1, wherein at least a portion of the sensors are positioned about one of a surface system of the wellsite, a downhole system of the wellsite, the wellbore and an adjacent formation and combinations thereof.

6. (Original) The method of claim 1, further comprising establishing an offsite communication link between the offsite control center and the wellsite.

7. (Original) The method of claim 6, wherein the offsite communication link is between the offsite control center and a surface control unit at the wellsite.

8. (Original) The method of claim 7, further comprising establishing an onsite communication link between the surface control unit and one of a surface system of the wellsite, a downhole system of the wellsite, and combinations thereof.

9. (Original) The method of claim 6, wherein the offsite communication link is between the offsite control center and the downhole tool.

10. (Original) The method of claim 1, further comprising establishing a wellsite communication link between one or more wellsites.

11. (Original) The method of claim 1, further comprising deploying a downhole tool into the wellbore.

12. (Original) The method of claim 11, wherein at least a portion of the sensors are positioned about the downhole tool.

13. (Original) The method of claim 11, wherein the drilling tool is removed prior to deploying the downhole tool, and reinserted after the removal of the downhole tool.

14. (Original) The method of claim 11, wherein the downhole tool is one of a wireline tool, a coiled tubing tool, a rapid formation tester tool, an electromagnetic tool and combinations thereof.

15. (Original) The method of claim 1, wherein the parameters are transmitted via one of satellite, cable, telecommunication lines, internet, radio, microwaves and combinations thereof.

16. (Original) The method of claim 1, wherein the transmitting and adjusting steps are performed in real time..

17. (Original) The method of claim 1, wherein the transmitting and adjusting steps are performed at intervals.

18. (Original) The method of claim 1, wherein the drilling tool is one of a measurement while drilling tool, a logging while drilling tool, a wireline drilling tool, a casing drilling tool and combinations thereof.

19. (Original) A system for drilling a wellbore from an offsite location, comprising:

at least one wellsite, comprising:

a drilling assembly comprising a drilling tool suspended from a rig via a drill string, the drilling tool having a bit at a downhole end thereof adapted to advance into the earth to form the wellbore;

a plurality of sensors disposed about the at least one wellsite, the sensors adapted to collect wellsite parameters; and

a wellsite transceiver for sending signals from and receiving signals at the at least one wellsite;

an offsite control center, comprising:

an offsite transceiver for sending signals from and receiving signals at the offsite location;

an offsite processor adapted to generate an analysis of the wellsite parameters and make decisions in response thereto; and

an offsite controller adapted to automatically adjust the wellsite setup according to the analysis of the wellsite parameters; and

an offsite communication link between the wellsite and offsite transceivers for passing signals therebetween.

20. (Original) The system of claim 19, wherein the wellsite further comprising a processor adapted to analyze the wellsite parameters and make decisions in response thereto.

21. (Original) The system of claim 19, wherein the wellsite further comprises a surface control unit adapted to adjust the wellsite setup.

22. (Original) The system of claim 21, wherein the surface control automatically adjusts the wellsite setup.

23. (Original) The system of claim 21, wherein the surface control unit manually adjusts the wellsite setup.

24. (Original) The system of claim 19, wherein the wellsite further comprises a surface system and a downhole system, the downhole drilling tool forming at least a portion of the downhole system.

25. (Original) The system of claim 24, further comprising a surface communication link between the surface system and the downhole system.

26. (Original) The system of claim 24, wherein the wellsite transceiver is positioned at one of the surface system, the downhole system and combinations thereof.

27. (Original) The system of claim 19, wherein the offsite center further comprises at least one monitor for displaying the wellsite parameters.

28. (Original) The system of claim 19, further comprising a communication link between transceivers at one or more wellsites for passing signals therebetween.

29. (Original) The system of claim 19, wherein the offsite communication link comprises one of satellite, cable, telecommunication lines, internet, radio, microwaves and combinations thereof.

30. (Original) The system of claim 19, wherein the at least one wellsite further comprises a downhole tool positionable in the wellbore, at least a portion of the sensors disposed about the downhole tool.

31. (Original) The system of claim 30, wherein the downhole tool is one of a wireline tool, a coiled tubing tool, a rapid formation tester tool, an electromagnetic tool and combinations thereof.

32. (Original) The method of claim 19, wherein the drilling tool is one of a measurement while drilling tool, a logging while drilling tool, a wireline drilling tool, a casing drilling tool and combinations thereof.

33. (Original) A method for drilling at least one wellbore at a wellsite from an offsite location, comprising:

selectively operating at least one drilling tool according to a wellsite setup to form the at least one wellbore;

collecting wellsite parameters from a plurality of sensors positioned about the at least one wellsite;

selectively adjusting the wellsite setup at the wellsite via a wellsite control unit;

transmitting at least a portion of the wellsite parameters from the wellsite to an offsite control center;

automatically adjusting the wellsite setup at the offsite control center based on an analysis of the wellsite parameters.

34. (Original) The method of claim 33, further comprising manually adjusting the wellsite setup at the wellsite.

35. (Original) The method of claim 33, further comprising automatically adjusting the wellsite setup at the wellsite.

36. (Previously Presented) A method for drilling at least one wellbore from an offsite location, the at least one wellbore located at a wellsite having a drilling rig with a downhole drilling tool suspended therefrom, comprising:

selectively advancing the downhole drilling tool into the earth to form the at least one wellbore, the downhole drilling tool operated according to a wellsite setup;

collecting wellsite parameters from a plurality of sensors positioned about the wellsite;

transmitting at least a portion of the wellsite parameters to an offsite control center;

performing an analysis of the wellsite parameters;

determining a drilling command at the offsite control center in response to the wellsite parameters;

transmitting the drilling command from the offsite control center to a surface control unit at the wellsite;

automatically transmitting the drilling command from the surface control unit to the downhole drilling tool; and

implementing the drilling command at the downhole drilling tool.

37. (Cancelled).

38. (Previously Presented) The method of claim 36, wherein implementing the drilling command comprises changing the wellsite setup.

X. Evidence Appendix

The declaration of James Belaskie under 35 C.F.R. § 1.132 is included in this appendix. The declaration is dated April 12, 2007, and it was submitted with the Response that was filed on April 13, 2007. The Examiner noted the Declaration of James Belaskie in the Advisory Action that was mailed on April 27, 2007.

CERTIFICATE OF MAILING
37 C.F.R. 1.8

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office in accordance with § 1.6(d) to: 571-273-8300, on the date below:

4/13/07 Date

Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.:	10/708,406	Confirmation No.: 2405
Applicant:	Garcia, *et al.*	
Filed:	03/01/2004	
TC/A.U.	3672	
Examiner:	Matthew J. Smith	
Docket No.:	19.0372	
Customer No.:	23718	
Title:	WELLBORE DRILLING SYSTEM AND METHOD	

Declaration of James Belaskie Under 37 C.F.R. § 1.132

I, James Belaskie, declare that all of the statements below are of my own knowledge, are true, and that all statements made on information and belief are believed to be true. I further declare that these statements are made with the knowledge that willful false statements are punishable by fine, imprisonment, or both under 18 U.S.C. § 1001, and that willful false statements may jeopardize the validity of the above-named patent application or any patent issued thereon.

1. I am over the age of eighteen, suffer no legal disabilities, have personal knowledge of the facts set forth in this declaration, and am competent to testify.

2. I have a Bachelor of Applied Science, Mechanical Engineering, University of Toronto, 1983

3. I have twenty-four years of experience, all in the drilling domain, with assignments ranging from field engineer to product development to drilling research. I am currently

the world-wide drilling engineering special interest group leader for Schlumberger, and I have had this position for the last 3 years.

4. I am an employee of Schlumberger Technology Corporation, the assignee of the present application.

5. The measurements needed for production control are in the order of one to few measurements per day, and the control signals are transmitted in the same time frame, at most a few control signals per day. The issue of data transmission latency can be ignored in production control. To control a drilling operation, measurements are needed remotely on the order of ever second to every three seconds. Latency in the data and control communications is a dominant factor in the design of a remote control drilling system. Someone designing a drilling control system would look to systems where data and control signal transmission latency is a significant portion of the needed frequency for measurements and control signals. Latency is such a small portion of the needed frequency for measurements for production control that it can be ignored.

6. In view of differences between drilling and production, it is my belief that a person having ordinary skill in the art of well drilling control, concerned with the problem of automatically adjusting the wellsite setup from an offsite location, would not look to any reference that concerned the control of a production well, because the control of a production well is not an analogous art to the control of a drilling operation. Specifically, U.S. Patent No. 6,456,902 issued to Streetman ("Streetman") is concerned with the control of a production well, and a person having ordinary skill in the drilling control art would not look to Streetman to solve any drilling problem because Streetman is from an unrelated art.

April 12th, 2007
Date

Signed by James Belaskie

XI. Related Proceedings Appendix

There are no related proceedings.